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DEVICE FOR FILLING FLASKS WITH A MOLDING MIXTURE

The invention concerns the casting industry; in particular, it concerns devices for filling flasks with a molding mixture.

There is a known device for filling flasks with lining and filling molding mixtures, comprised of two hoppers provided in a parallel manner, provided with slide gates; in this state, belt feeders are provided under each hopper; under the belt feeders, an intermediate reservoir is provided with the ability to move along the front of the feeders for a layer-by-layer accumulation of the lining and filling mixtures [1].

A defect of such a device is comprised in that the lining and filling mixtures are distributed in the flask in accordance with a model assembly, without consideration for the shape of the model, which increases the consumption of the lining mixture and decreases the quality of the obtained mold.

The objective of the invention is to increase the quality of the mold by filling the flask with lining and filling mixtures corresponding to the shape of the model.

This is obtained in that the feeder is provided in the form of a platform carrying master forms interacting with the slide gates of the hoppers, while the belt feeders are provided with a

device to brake the belts.

An overall view of the proposed device is shown in the drawing.

The device has a movable platform (1) with a reversible drive (2); two idling belt feeders (3 and 4) provided with devices for braking the belts (5), e.g. by means of the belt brakes of two hoppers (6 and 7), corresponding to the lining and filling mixtures with vertically positioned slide gates (8 and 9), and two master forms (10 and 11). The slide gates are provided with the ability to move vertically when interacting with a master form with the help of an intermediate roller (12).

The device operates in the following manner.

When the frame (1) is moved in the direction of the arrow (A), the belt of the feeder (3), being braked by the brake (5), is loaded with a dose of lining mixture, which enters the belt from a hopper (6) through an open slide gate (8) in the process of moving the belt relative to the hopper; as this happens, a master form (11) forces the slide gate to be raised or to empty itself through the intermediate roller (12), shaping the thickness of the layer of mixture on the belt in correspondence with the shape of the model.

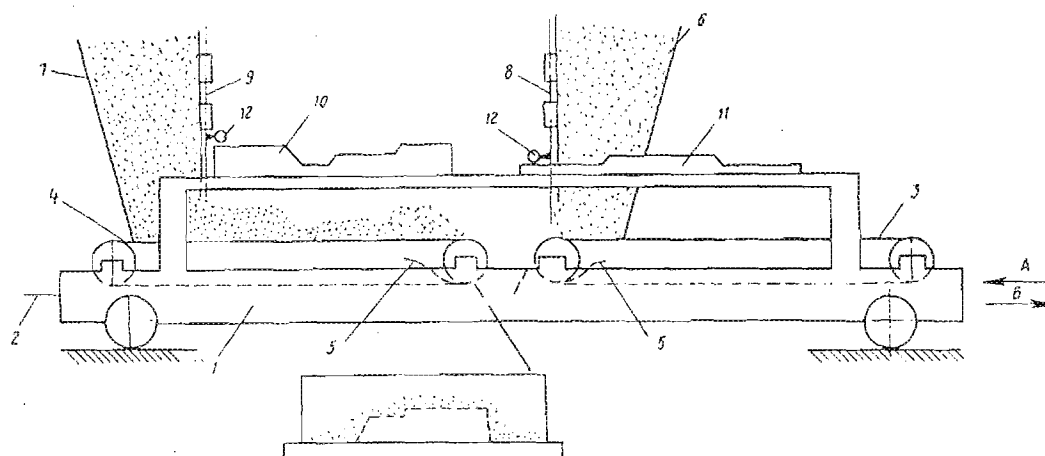
Then, the platform (1) is moved in the direction of the arrow (B). When this happens, the belt of the feeder (4) is loaded with a dose of filling mixture from the hopper (7) through the open slide gate (9); the belt of the feeder (4) is braked, and the braking of belt of the feeder (3) is release, and due to the frictional forces between the belt and the mixture located at the base of the hopper (5), this rotates on the drums of the feeder, remaining stationary with respect to the hopper (6). As a result of this, the belt (3) is unloaded, and the flask is filled with the lining mixture.

Further, as the aforementioned movements are repeated, a sequential filling of the flasks with lining and filling mixtures is carried out.

Claim

Device for filling flasks with a molding mixture of a different composition, containing loading hoppers with slide gates, belt feeders, and a feeding reservoir movable along the front, characterized in that, with the objective of increasing the quality of the mold by shaping each layer of mixture to be filled in the flask with respect to the shape of a model, the reservoir is provided in the form of a platform carrying master forms, interacting with the slide gates of the hoppers, and belt feeders, provided with devices for braking the belts.

Prior art document: 1. Patent of the Federal Republic of Germany, No. 1758414, 1970.



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